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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,430	11/02/2001	Masato Itoh	011422	3488

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EXAMINER

JONES, JUDSON

ART UNIT PAPER NUMBER

2834

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,430

Applicant(s)

ITOH ET AL.

Examiner

Judson H Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Specification***

The specification is objected to because it appears to be a bad photocopy. Many letters are blurred, some letters have parts missing and copy machine marks are on the pages. The printer would not be able to reliably make a printed copy of this specification. Better copies of the specification and drawings are required.

Drawings

Figure 12A-12D, 13 and 14A-14C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 starts reciting a pole tooth pattern on an X-axis movable element. In lines 8 and 9 the claim talks about how the "2n number of magnetic teeth of the pole tooth pattern" are arranged on the platen. However it was never established that the platen has a pole tooth pattern. Applicant needs to state that the platen also has a pole tooth pattern, possibly a pole tooth pattern designed to interact with the pole tooth pattern on the X-axis movable member.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese reference 60-014679 U (cited in the International Search Report). The Japanese reference discloses a linear motor having a platen 6 with a plurality of platen dots as shown in figure 12b arranged in a matrix and an X-axis movable element 1 having a pole tooth pattern having a set of at least $2n$ pole teeth as shown in figure 2, said platen having parallel sheet edges comprised of a plurality of magnetic sheets stacked together as shown in figure 12b. See figure 2 for the staggered relationship of the pole teeth, the spatial phase and increments of the spatial phase difference. The examiner is relying on an untranslated Japanese reference in this rejection. This reference and Japanese reference 04-210768 used in the rejection of claim 3 have been sent to the USPTO translation department for translation into English.

In regard to claim 2 see figure 2.

In regard to claims 6 and 7, see figure 12a. The variable number n is 2 here.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese reference 60-014679 in view of Japanese reference 04-210768. Japanese reference '679 discloses a first tooth pattern but does not disclose a second tooth pattern formed apart from the first tooth pattern in the normal direction. However Japanese reference '768 discloses a second tooth group 2E between the teeth of a first tooth group as shown in figure 2 for the purpose of eliminating pitching and yawing of the motor. Since Japanese reference '679 and Japanese reference '768 are both from the same field of endeavor, it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a second tooth group in the linear motor of Japanese reference '679 in order to reduce pitching and yawing of the linear motor.

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, provided the U.S.C. 112 reference of claim 1 is overcome.

The following is a statement of reasons for the indication of allowable subject matter:
The prior art of record does not disclose or teach a linear motor having a composite movable

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member comprising an X-axis and a Y-axis movable member with the Y-axis movable member moving in the sheet edge direction of the magnetic sheets as recited in claim 4. Japanese reference '679 discloses in figure 10 a movable member moving in a Y direction. However the X-axis movable member is also the Y-axis movable member. Sawyer Re. 27,436 discloses a composite movable member comprised of X axis and Y axis movable members in figure 2, but no reason has been found for combining Japanese reference '679 with Sawyer. While Japanese reference '679 shows a mover movable in the Y direction, the Y direction movement is limited to keeping the movable member centered over the platen. While Japanese reference '679 has a platen surface with dots arranged in a matrix, the device is a linear motor designed to move forwards and backwards in a single direction. Sawyer discloses an XY movement device for moving forwards and backwards in two directions. See Sawyer column 3 lines 37-41 for a description of the platen in his device.

Any inquiry concerning this communication should be directed to Judson H Jones whose telephone number is 703-308-0115. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JHI

December 17, 2002

Judson Jones
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